

ΨYXH, ANGELS AND UNKNOWABLE FORMS¹

Prof. David Gutiérrez-Giraldo

¹ I presented the first version of this essay to the III International Ontology Congress, held at the Universidad del País Vasco, San Sebastián, Spain, 1998.

I The matter

The fact that in passages of his *Metaphysics* and his biological works Aristotle refers to εἶδος sometimes as universal (καθόλου) form and sometimes as singular (καθ'ἑκαστον) form seems to be seen as an incoherence, even as a contradiction of his on this subject –‘a fatal paradox,’ Joseph Owens has said (Balme: 1980). In order to set the sense of εἶδος scholars usually state what they believe to be Aristotle’s genuine postulate. Some say that εἶδος is, according to him, universal form; others, that it is particular (nonsensically called by most of them “individual” form²). I think both are right in proving each of Aristotle’s considerations as true; but they are wrong when they determine that the one they argue for is incompatible with and therefore exclusive of the other. The aim of this paper is to suggest that there is neither contradiction nor incoherence in seeing εἶδος as universal and as singular form; and I shall do so applying my ψυχή-genotype paradigm.³

² I say “nonsensically” because, as professor Miguel Candel has made me see (p.c. 27.04.1998) form is, by definition, species. The word used by Plato and Aristotle is εἶδος, translated into Latin languages as “form” and as *species*: etymologically εἶδος means the “aspect” a thing has to sight. The form only exists in the individual although it does this belonging is not exclusive. Therefore it is not an *ens* but an *entitative principle* (i.e. one of the four causes). The only thing which is individual (and real in a full sense) is the matter-form synolon.

³ I presented the first version of the paradigm to the Aristotle and Contemporary Science International Conference, held in Thessaloníki, Greece, in September, 1997. I appeared afterwards in D. Sfendoni-Mentzou et al, eds., *II Aristotle and Contemporary Science* (New York: Peter Lang, 2001), 163ff. Some sources were referred to me by Aryeh Kosman and Jim Lennox, whereupon I retouched some of the original text.

II The difficulty.-

The difficulty emerges when Aristotle, apparently contradicting his statements about the universality of the form, treats ψυχή as the singular form or εἶδος of each individual living thing. According to Rogers Albritton (1957), in a response to Wilfrid Sellars (1957), Aristotle ‘does not say that concrete particulars in general have particular forms anywhere in *Metaphysics* or any other work, except in *Metaphysics* L. And where the forms of the living beings are not expressly conceived to be souls, as they are usually not in the *Metaphysics*, there is no hint that even these things have particular forms.’ Then Albritton goes on: ‘To set against this great majority of passages in which Aristotle writes as though there were only universal forms, we have (1) the explicit testimony of Λ to a general theory of particular forms, whose ground is that proximate causes of particulars must be particular; (2) the very nearly explicit attribution of particular forms to animate substances in Z, H, and, more tentatively, M; (3) the arguments of Z 13; and (4) the general requirement [...] that the substance of a thing be a substance, one not less, indeed more substantial than the thing whose substance it is.’ Albritton denounces here ‘a point of unclarity and conflict in the *Metaphysics* not fully resolved even in the special core of animate things.’

On this subject Jennifer Whiting (1995) has defended the view that ‘individual form is the principle of individuation both of the [ψυχή-σώμα] compound and of its functionally defined parts.’ Michael Frede (1985), in turn, has said that ‘[s]ubstantial forms [...] as ultimate subjects and as substances are particular’ and that ‘they differ from each other by being realized in different matter [cp. 1034a6-8 & 1016b33] and by being the ultimate subject of different properties.’

The dilemma, then, can be stated as follows: Is there any incoherence in considering εἶδος both as universal and as singular form? In other words: Is it contradictory to say for

example, on the one hand, that εἶδος is a being separate from and prior to the form-matter compound and, on the other, that εἶδος cannot exist but materialized in bodies whose ἐμψυχία is essential? I don't believe so. And, given that if living things 'are substances if anything is' (1032a20) ψυχαι might then be the forms *par excellence*, outlining my opinion needs a recall of Aristotle's thought of ψυχή .

III The ψυχή-genotype paradigm

Regarding the meaning of the *De Anima* II ψυχή I support the interpretation⁴ according to which ψυχή is the set of threptic, aesthetic or dianoetic generic capacities –each one potentially contained in the next- in virtue of whose essential possession a physical body performs by itself, through its corresponding organs and due to its having them and to its being organized in the appropriate manner, the threptic, aesthetic or dianoetic ἐνέργειαι⁵ that constitute its living as or its specifically being a living “this” of a certain kind.

Indeed, an organism is a physical body whose being is to live (415b13). If to live is to execute by itself and in the manner proper to its kind the complex and essentially interrelated functions that constitute ‘thinking or perception or local movement and rest’ (413a24) or ‘self-nutrition and growth and decay’ (412a14), what primarily causes its being is its capability to operate in such a way. This (second) potentiality is ψυχή : a complex functional unity (1040b17) of δυνάμεις ordered to life; it is ‘substance in the sense of form of a physical body having life potentially within it’ (412a20).⁶

Not any matter, though, is capable of being informed by ψυχή but only natural bodies essentially constituted by life-functions defined parts (412a28) organized so as to be capable of realizing, under certain environmental conditions, the type of life that orders the set of capacities ψυχή consists in.

Now, ‘the proximate matter and the form are one and the same thing, the one potentially, the other actually’ (1045b18-19); the organ and the capacity primarily seated in it ‘are the same in fact [their essence being not]’ (424a24-25) and so are the organic body and the ψυχή that informs it, ψυχή being the form the body attains when it actually exists (1043a35).

⁴ See R. Sorabji: 1979. On the τόδε τί see J.A. Smith: 1921.

⁵ See *Metaph* 1048b18-34

⁶ Cp. *id.* 1048a1-8

So considered, ψυχή is the organic structure's first actuality. It is the entity that essentially informs a physical body defining it as a τόδε τί, both the potential and the actual constituting an intrinsic unity (412a8, 193b2-6, 1043a29-b4; 1045b18-21, 1049a35).

Note that by being “physical” or “natural” such a body has in itself ‘the source and cause of its motion and rest’ (192b8-15, 1014b16-a19). This principle indwelling each living thing is called ψυχή ; whereupon form is also the first kinetic cause of the genesis, reproduction, growth, development, operation, conservation and decay of organisms.

As I have elsewhere shown, ψυχή corresponds to what is known by us as genotype.⁷ Genotype is the chemically written λόγος that, necessarily present in some natural body and interacting with the environment, defines said body's peculiar operation and organization, primarily causing its being a living thing of a definite kind, capable of maintaining itself “numerically one and the same” while undergoing αλλοίωσις along its lifespan.⁸

How does it work? Encoding instructions on the what, the when and the how referred to the synthesis of the proteins to which organic structures and functions are mostly due. Matter's capacity of life depends upon the structural-functional order primarily informing the proteins that constitute it as its raw material. This order is the one genotype defines.

Is genotype the “substance in the sense of form” of a physical body potentially alive? If the form is the complex functional unity of capacities ordered to life; if these capacities and the

⁷ Note that I say *genotype* as meaning the genetic constitution of an individual organism. I do not say *genome* because it is the total genetic content of a gamete; and I do not say *DNA* either because it is, so to say, the material support of the genotype.

⁸ See Furth: 1990, 181

organic body they inform are the same in fact, it seems that the genotype is the entity that essentially informs a natural body defining it as a living individual of a certain kind. And this is so because the form the organic structure attains when actually in existence is the one defined in its genotype.

The genotype is the full score of an organism's morphogenesis. Interacting with the environment it determines the structural and functional differentiation of cells and tissues; it regulates the shape, development, distribution, organization, interrelation and composition of parts and organs; it specifies the specialization of bodily parts, organs and mechanisms in furnishing specific functions, and it directs the metabolic reactions that make possible said body's construction and activity. As Aristotelian ψυχή, the genotype is the form, the first actuality of a body capable of life.

But remember that the only matter apt to this organization and operation is one which has in itself a source and cause of its motion and rest δι'αυτου. In living things this kinetic principle is their genotype, whose very first expression is reproduction and self-maintenance, threptic activities (735a15-21; see 1012b33-a7) which characterize a molecular structure as a basic living unity, like a cell.

IV The twofold Aristotelian sense of εἶδος

Up to this point it is observable that when dealing with living things Aristotle uses εἶδος as singular form which is (1) essential principle of individuation of a living being (415b5-8) and (2) the ‘source and cause of motion and rest’ that indwelling a matter causes its being “natural” and therefore capable of life, since for the natural body –‘ultimate individual matter’ (1035b31)- to be “potentially alive” it must be ἐμψυχόν and therefore “actually alive” (412b25).⁹ Thence the case of organisms is quite clearly one of those in which ‘the essence and the singular thing are the same’ (1037b1, 735a8), ψυχή being each particular living thing’s singular form and substance (407b26, 1037a5-9); and it is in the sense of actuality the one in which it is said ‘that the causes of different individuals [in the same species¹⁰] are different, your matter and form and moving cause being different from mine.’ (1071a28) Whence there seems to be no error in stating that εἶδος is actually singular form nor in considering a materialized form a τόδε τί as Aristotle sometimes certainly does (v.g. at 1017b25, 1041b29, 1043b18, 1049a28).¹¹

Now, if εἶδος happens to be confined by us to singularity, apories would immediately appear.¹²

1. The first one would be that form could not fulfill its function as “cause of being” (1041a6-b32) of the composite in so far as it would not be a separate being from the composite. Ψυχή certainly plays this rôle, and it is a separate being from the organism it informs.

⁹ Cp. *Metaph* 1049a5-18

¹⁰ As Balme: 1980, 8 writes, ‘[i]n Aristotle’s usage a species is the universal generalized over all animals that have the same essence, as they appear in nature. The explanatory power of essence is that it reveals the teleological features. The account of the species gives this plus an explanation of the material appearances and accidents [...]’

¹¹ On this see Frede: 1985

¹² Here I take into account the considerations put by Furth as favoring specific rather than individual form as the understanding of εἶδος in the *Metaphysics*.

Although it is so (and it can be so only) potentially; on the one hand, because forms can only exist in matter; on the other, because once enmattered or realized, both form and matter are one and the same thing and they admit but a logical disunity or ‘separation in statement’ (193b4), never a real one.

2. Secondly, form would not be ‘prior to the matter and more real’ nor ‘prior to the compound’ (1029a6) and could not be essence in the sense of substance without matter (1032b2, b14). Ψυχή pre-exists the compound but, as my ψυχή -genotype paradigm shows, it does so (and it is able to do so only) potentially. The process of an organism’s genesis by one or more homogeneous pre-existent individuals is one in which ‘the principle of form’ or the ‘first moving cause’ (765b11-12) stored in the semen is imparted to a material in such a way and under such conditions that it ‘gives rise to the embryo [not] as being in the embryo’ (729b19) but setting up in it a developmental motion directed towards the ‘stepwise construction of co-specific offspring.’¹³ The form of the particular organism, then, results from the recombination (or replication) of information transmitted by other pre-existent co-specific individuals and is, so to say, a daughter composition formally (or potentially) identical to the ones whose information was sent forwards. In this process the generated gets the principle of its form from the generator and in this sense it can be said that the form of the individual begotten organism potentially pre-existed it (in the begetters) (1034b8-19, 722b11, 734b3, 767b24-a1).¹⁴

¹³ Furth, 119

¹⁴ The genotype also determines certain traits or qualities, e.g. eyes color, that can be seen as accidental; I think they are not so, though, if they are ‘found to characterize the whole of a kind’ (778a21) or if they are a product of “descent with modification” (Gould: 1979, 34ff) and thus ‘exist for a final cause’ –i.e. for the sake of the most functional advantage (see Balme, 11f)- and have a ‘connection with the account of the animal’s essence.’ (778a34-b1)

3. Thirdly, singular form would come-to-be and pass-away simultaneously with the organism caused by it; subject to generation and destruction, it would not be intelligible nor demonstrable nor definable (1039b24-30, 1043b15-23).¹⁵ Ψυχή, though, the form of living things, is potentially incapable of generation and destruction if it be seen as form of a species,¹⁶ whose temporal continuity seems to be the τέλος or final cause of each particular organism.

In *De Anima* Aristotle says that reproduction, the production of ‘another like itself’ (415a28), is the life-function through whose fulfillment individual organisms ‘as far as its nature allows’ ‘may partake in the eternal and divine [cp. 336b25]. That is the goal towards which all living things ορέγεται, that for the sake of which they do whatsoever their nature renders possible.’ Since every individual is perishable, ‘it tries to achieve that end in the only way possible to it, [i.e. reproducing itself] and success is possible in varying degrees; so it remains not indeed as the self-same individual but continues in existence in something like itself -not one in number, but one in εἶδος.’ (415a29-b9, 338b6) Here the “eternal and divine” seems to be the species to which the individual belongs as a particular and to which it is analogous just as his singular form is analogous to the form of the species.

Now, the natural doings of any organism are subordinated to its plain achievement, to the consummation of its (singular) ψυχή (199a26-33, 193b13-18, 194a29-33), being no product apart from this actuality (-whence ‘life is in the soul’- (1050a35-b1). This form can only exist embodied in particular, actual individuals. Its endurance depends, then, upon the existence of the particulars it informs. But every doing and every capacity contributing to their existence –including self-maintenance, reproduction

¹⁵ See *APo* I 31 & *Metaph* Z 17

¹⁶ See n7 above

and form stability¹⁷-, to the betterment of the conditions in which it takes place –including adaptation and mutation capacities-, to the equilibrium between different living species, contributes to the perpetuation of the universal form. Note that in Aristotle’s view it is particular organisms who strive to survive as themselves either in themselves -through self-maintenance- or in others like themselves –through reproduction- (415b6-8; cp. 338b16, 731b24-35); it is that which comes into being that, being impossible for it to be eternal as an individual, strive to perpetuate itself, i.e. its form as species (731b34). Doing so individuals perpetuate the form they have in common. Εἶδος, then, is potentially universal, “eternal and divine” and thence intelligible, definable and demonstrable.

4. Fourthly and finally, singular εἶδος does not account for the unity of ‘omoeidh individuals. Considered as universal it is, as Furth (181) has pointed out, ‘*principle of synchronic individuation* in the sense that it warps or stamps out the materials into a multiplicity of self-contained unitary packages.’ While the source of their multiplicity is matter (1034a5-8) ‘the source of their unity is still form.’ It is in virtue of the specific (or universal) ψυχή that substantial individuals are said to be one; it is ‘the cause determining that man comes-to-be from man,’ and ‘wheat (instead of an olive) comes-to-be from wheat, either always or for the most part’ (335b5-9). Moreover, it is the cause of men being one in form (999b24-a4) and of the form of man being their substance.¹⁸

¹⁷ Ψυχή’s changelessness does not bar its capacity of mutation if the “invariability” alluded to at 199b26 is understood as something which happens to be mostly so and so.

¹⁸ See Albritton, 706

V My suggestion

In short, my suggestion is that there is no contradiction nor incoherence in the Aristotelian use of form or εἶδος both in particular and in universal sense. And this is so because, as an accurate analysis of ψυχή can disclose, εἶδος is actually singular form and potentially universal form. Disrupting Aristotle's complex thought of εἶδος would lead it to collapse through two different but correlated paths.

If, on the one hand, it is argued that εἶδος is singular form but in no way universal, we would be dealing with ultimately unknowable substances, since demonstration, definition and intelligence is of universals. Knowledge *sensu strictu* would be impossible due to its lack of object and this would somehow amount to deny human dianoetic nature -or leastwise to underestimate it in a far from Aristotelian way.

If, on the other hand, it is hold that εἶδος is universal form but in no sense singular, we would proceed straight ahead to the artifice used by Thomas Aquinas in order to spuriously demonstrate the existence of angelic beings, which '*non habent corpora sibi naturaliter unita*' (*Summa Theologica* I q. 51 a 1). Furthermore, we would be prone to say with him that '*si ergo angeli non sunt compositi ex materia et forma [...] sequitur quod impossibile sit esse duos angelos unius speciei [...]. Si tamen angeli haberent materiam, nec sit possent esse plures angelis unius speciei.*' (I q. 50 a 2) Against all natural evidences, we would be maintaining that a form can exist without a matter.

Both conclusions, it seems to me, are contrary to nature and anti- or at least non-Aristotelian.

Sitges, 1998

REFERENCES

- TH. AQUINAS, *Summa Theologica* (Madrid: Ed. Católica 1956)
- ARISTOTLE, · *Metaphysica* (Trans. W.D. Ross)
- _____, *De Anima* (Trans. J.A. Smith)
- _____, *Physica* (Trans. Hardie & Gaye)
- _____, *De Generatione Animalium* (Trans. A. Platt)
- _____, *De Generatione et Corruptione* (Trans. H.H. Joachim)
- _____, *Categories* (Trad. J.L. Ackrill)
- _____, *Analytica Posteriora* (Trad. J. Barnes)
- R. ALBRITTON, “Forms of particular substances in Aristotle’s *Metaphysics*”, *Substance and form in Aristotle* 54 *Journal of Philosophy* 699-708 (1957)
- D.M. BALME, *Aristotle’s biology was not essentialist* 62 *Arch. Gesch. Philos.* 1-12 (1980)
- M. FREDE, *Substance in Aristotle’s Metaphysics* in A. Gotthelf (ed), *Aristotle on nature and living things* 17-26 (Pittsburgh: Mathesis Publications; Bristol: Bristol Classical Press 1985)
- M. FURTH, *Substance, form and psychê: an Aristotelean metaphysics* (Cambridge: Cambridge University Press 1990)
- S.J. GOULD, *Ever since Darwin. Reflections on natural history* (New York, London: Norton 1979)
- D. GUTIÉRREZ-GIRALDO, *Ψυχή and Genotype*, Paper presented to the “Aristotle and Contemporary Science” international conference (Thessaloníki 1997)
- W. SELLARS, *Substance and form in Aristotle* 54 *Journal of Philosophy* 688-699 (1957)
- J.A. SMITH, *Tóde ti in Aristotle* 35 *Classical Review* 19 (1921)

· Aristotle’s works translations as in Jonathan Barnes (ed.), *The Complete Works of Aristotle* (Bollingen Series LXXI 2, Princeton: Princeton University Press 1991)

- R. SORABJI, *Body and soul in Aristotle* in J. Barnes et al (eds), *IV Articles on Aristotle* 42-64 (London: Duckworth 1979)
- J. WHITING, *Living Bodies* in M. Nussbaum & A.O. Rorty (eds), *Essays on Aristotle's De Anima* 75-91 (Oxford: Clarendon Press 1995)